DOCUMENT RESUME

ED 094 231 CE 001 754

TITLE	Training and Technology. Report of Program Activities January 1--June 30, 1973. Conducted at the U.S. Atomic Energy Commissions Oak Ridge Y-12 Plant. Summary Report.
INSTITUTION	Oak Ridge Associated Universities, Tenn. Manpower Development Div.
SPONS AGENCY	Manpower Administration (DOL), Washington, D.C. Office of Research and Development.
REPORT NO	DLMA-82-47-72-05-7-73-8
PUB DATE	Jul 73
NOTE	33p.
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	Adult Vocational Education; Demonstration Projects; Industrial Technology; *Industrial Training; Job Training; *Manpower Development; *Pilot Projects; *Program Descriptions; *Research and Development Centers; School Industry Relationship
IDENTIFIERS	*Manpower Research

ABSTRACT

The report is a description of the program activities carried on by Training and Technology (TAT) during the first six months of 1973. In the general category of manpower research and development, brief but detailed descriptions are given of each of the projects conducted in the development and extension of the TAT training model in Albuquerque, Chicago, East St. Louis, West Virginia, Tennessee, McDowell Mine Technology Training Center, and in work with Atomic Energy Commission eastern area contractors, extension to the Functional Industrial Training (FIT) program, the adult education TAT program, and training for Black Lung Award recipients; a community career education resources project in joint high school and industry training is described; and experimentation and evaluative research reported. A regional utilization network conference is reported on, a six-page log of TAT activities is offered, and information is provided on documentation and dissemination of publications. A concluding study briefly reviews a project titled "Upgrading in an Industrial Setting." (AJ)

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TRAINING AND TECHNOLOGY

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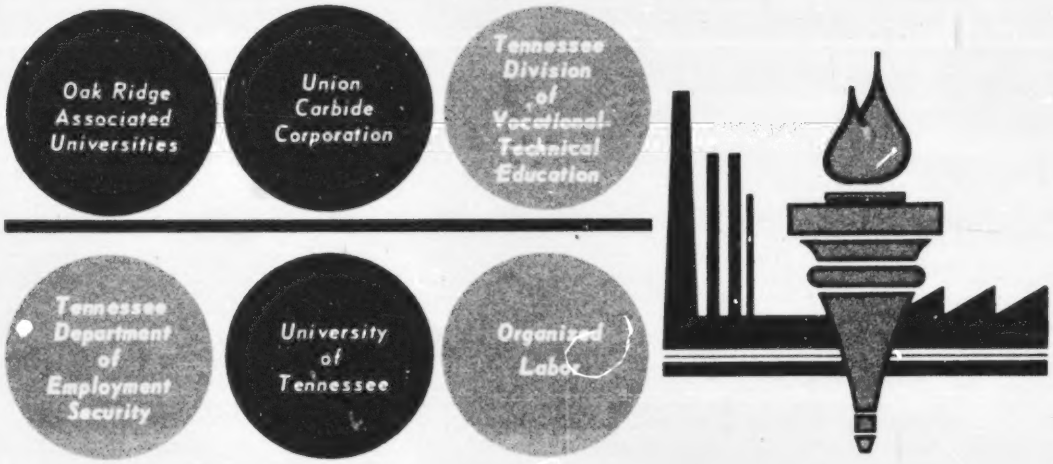

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CONDUCTED AT THE U. S. ATOMIC ENERGY COMMISSION'S OAK RIDGE Y-12 PLANT

ED 094231

Oak Ridge
Associated
Universities

Manpower
Development
Division

SUMMARY REPORT

Program Activities

January 1-June 30, 1973

Oak Ridge Associated Universities
Manpower Development Division
Operated under contract with the U. S. Atomic Energy
Commission through interagency agreements
with U. S. Department of Labor

Oak Ridge, Tennessee

7-73-8

July 1973

This report was prepared for the Manpower Administration, U. S. Department of Labor, under research and development contract nos. DOL 82-47-72-05, AEC 40-318-71 and DOL A-20-47-73-18, AEC 40-318-71. Since contractors conducting research and development projects under Government sponsorship are encouraged to express their own judgment freely, this report does not necessarily represent the official opinion or policy of the Department of Labor. The contractor is solely responsible for the contents of this report.

STANDARD TITLE PAGE FOR TECHNICAL REPORTS	1. Report No. DLMA 82-47-72-05-7-73-8	3. Recipient's Catalog No.
4. Title and Subtitle Training and Technology, Summary Report: Report of Program Activities January 1-June 30, 1973		5. Report Date July 1973 6. Performing Organization Code
7. Author(s) TAT Staff		8. Performing Organization Rept. No. 7-73-8
9. Performing Organization Name and Address Training and Technology Program Oak Ridge Associated Universities P. O. Box 117 Oak Ridge, Tennessee 37830		10. Project/Task/Work Unit No. 11. Contract/Grant No. DL 82-47-72-05
12. Sponsoring Agency Name and Address **U.S. Department of Labor** **Manpower Administration** **Office of Research and Development** **1111 20th St., N.W. Washington, D.C. 20210**		13. Type of Report & Period Covered mid-year 14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstracts

This report is description of the program activities carried on by Training and Technology during the first six months of 1973. General categories include Manpower Research and Development, Training and Technology, and Upgrading in an Industrial Setting. Each of the projects under these headings is described in detail.

17. Key Words and Document Analysis. 17a. Descriptors

Industrial training
Manpower
Skilled workers
Specialized training
Technical schools
Upgrading

17b. Identifiers/Open-Ended Terms

Manpower research and development
Application of manpower findings
Extension of training model
Career education

17c. COSATI Field/Group 5 I

18. Distribution Statement	19. Security Class (This Report)	21. No. of Pages
Distribution is unlimited. Available from National Technical Information Service, Springfield Va., 22151.	UNCLASSIFIED	
	20. Security Class (This Page) UNCLASSIFIED	22. Price $3.00

MANPOWER DEVELOPMENT DIVISION
Oak Ridge Associated Universities

Effective July 1, 1973, the Training and Technology Program (TAT) became the Manpower Development Division of Oak Ridge Associated Universities. With division status, MDD will continue to be responsible for operating three programs. The Manpower Research and Development Program carries on activities in several areas: Development and Extension of the TAT Training Model, Experimentation and Evaluative Research, Utilization Activities, and Documentation and Dissemination. The Training and Technology Program conducts skill and technical training in six skill areas: welding, mechanical operations, physical testing, machining, electronics and industrial electricity. TAT is also responsible for training-associated activities such as supportive services and placement. The Upgrading Program is a research project on Upgrading in an Industrial Setting. It involves both research on current practices and testing of alternative upgrading models.

The activities reported here were performed under two interagency agreements between the U. S. Department of Labor and the U. S. Atomic Energy Commission. Work performed through May 15, 1973, was carried out under interagency agreement DOL 82-47-72-05, AEC 40-318-71. Work performed between May 16, 1973, and November 15, 1974, will be conducted under interagency agreement DOL A-20-47-73-18, AEC 40-318-71. The new agreement specifies a number of Research and Development activities to be conducted by ORAU Manpower Development Division over the 18-month period of the contract. Many of the activities conducted under the previous contract continued into the new contract period, and to ensure consistency are reported under the program headings specified by the current proposal: *Plan of Work for Manpower Research and Development Activities - April 1, 1973 to September 30, 1974.*

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MANPOWER RESEARCH AND DEVELOPMENT

I. Development and Extension of the TAT Training Model

Work With AEC Eastern Area Contractors

Beginning in October 1971, Training and Technology became available as an AEC industrial training site for all eastern area contractors. The program was designed to utilize the present TAT facility to conduct and coordinate comprehensive training programs for eastern AEC contractors. During the first year of operation, the program was designed to train up to 200 disadvantaged persons to meet AEC manpower needs.

The objective of TAT staff contact with AEC eastern contractors is to encourage them to participate in the Training and Technology program and to visit the training facility to keep up-to-date on program activities. A second objective is the exploration and development of extension possibilities.

During the first quarter of 1973, TAT staff contacted via telephone all eastern AEC contractors to encourage their participation in the April training cycle of the Training and Technology program. In addition, visits were made by TAT staff to the National Accelerator Laboratory, Batavia, Illinois; Argonne-Chicago, Argonne, Illinois; Mason & Hanger, Burlington, Iowa; du Pont-Savannah River, Aiken, South Carolina; and National Lead of Ohio, Cincinnati, Ohio. Program information was provided the contractors and commitments to participate in the April 1973 training cycle were obtained. The AEC and its contractors are sponsoring 85 trainees in the current cycle.

Contractors are encouraged to visit the Training and Technology facility and are informed of TAT activities and pilot programs. Current sponsors are also encouraged to discuss TAT with GOCO's that have not been involved in the program.

TAT maintained contact with AEC eastern contractors and encouraged their further participation in TAT through the October 1973 training cycle. In preparation for the October cycle, AEC Headquarters was contacted to coordinate field visits for recruitment. Those contacted by TAT staff included Bendix, Savannah River, Goodyear Atomic, Mound Laboratories, Pinellas, Argonne-West, Mason & Hanger (Burlington, Iowa), Mason & Hanger, (Amarillo, Texas), Brookhaven National Laboratory, Argonne-East, Aero Jet Nuclear, and National Accelerator Laboratory.

So far tentative commitments for the October training cycle have been received from Argonne-East, Argonne-West, and National Accelerator Laboratory.

Albuquerque Area Application

An agreement was developed between ORAU and Albuquerque Technical-Vocational Institute to explore establishment of a cooperative industry/education project in the Albuquerque area. A staff member of TVI was contacted by ORAU to explore and identify industrial facilities, equipment, personnel, technology, job placement data, programs and initial training areas. The cooperative project would initially involve Albuquerque TVI, U. S. Atomic Energy Commission and possibly the Sandia Corporation, a GOCO contractor of the U. S. Atomic Energy Commission. The overall objective of the multi-agency agreement is to provide quality training for quality jobs for unemployed persons of the Albuquerque area and the State of New Mexico.

On January 15, 1973, a staff member of the Albuquerque Technical-Vocational Institute visited TAT for four days of observation and discussion with TAT staff. This visit was designed to provide an overall view of the industry/education training model and to obtain technical assistance for program implementation.

Since this visit, program development contact has been held with AEC-Albuquerque Operations, Sandia and local and state manpower agencies and major industries in the Albuquerque area. A draft prospectus was completed and was reviewed by ORAU, Sandia, AEC and ATVI. Additional work will be necessary in the areas of locating program sponsors, finalizing the identification of facilities and final proposal development.

During May, a representative of AEC Headquarters visited Albuquerque for discussions with Sandia Corporation, AEC and the Technical-Vocational Institute on progress to date in the development of a cooperative training program utilizing AEC's industrial facilities in Albuquerque. Rather than a complete industry/education model like that of TAT, the initial training program allows TVI access to Sandia facilities to conduct a portion of a training program for mechanical layout inspectors. The training program is scheduled to begin this fall.

Extension of TAT Services to Functional Industrial Training (FIT) Program

TAT continues to provide technical and supportive services support such as placement services to Functional Industrial Training (FIT) staff as required and serves in an advisory capacity in matters relating to contractual agreements.

TAT staff maintained the administrative liaison with FIT staff to provide program data for inclusion in the TAT data bank system. Seventeen trainees from the February cycle of FIT graduated in June, and 20 additional trainees enrolled in June.

Chicago Area Application Activities

An important application effort by TAT staff was work on the development of a Chicago area application for the training of unemployed and underemployed men and women as chemical technicians in related fields. Full details of the program development activities for the application during 1972 are reported in the *1972 Training and Technology Annual Report and Statistical Summary*.

The year-long application effort of TAT staff directed toward the development of a Chicago area training project showed considerable results by the end of 1972. The members of the project had established their commitments and roles in the project by February 1973. Standard Oil furnishes the primary training site in its AMOCO Research Center, Naperville, Illinois, and is sponsoring ten trainees in the pilot training cycle. G. D. Searle Laboratories of Skokie, Illinois, is sponsoring six trainees. Argonne National Laboratory is sponsoring a trainee also. Triton College is administering the overall program with the cooperation of nearby College of DuPage; and the Illinois State Employment Service and Illinois Division of Vocational Education are underwriting the institutional training costs.

The Dean of Career Education, Triton College, was selected as the project administrator. He visited TAT on March 2, 1973, and reviewed planning needs with TAT Research and Development staff and Industrial Skill and Technical Training staff. A personal services agreement was concluded to support the Dean's assignment as on-site development coordinator. By the end of March, a number of the necessary arrangements for program implementation were completed:

- Plans for several program task forces were completed and agreed upon.
- In cooperation with Standard Oil, facilities and equipment for training were identified at the Naperville Research Center.
- A preliminary budget and necessary MDTA documents were completed in cooperation with Illinois State Employment Service and Illinois Division of Vocational Education, and the Illinois Junior College Board.

The program began operation on May 27, 1973, with 17 unskilled underemployed or unemployed Chicago area residents enrolled. TAT staff will continue to work closely with the project through the stages of program implementation and pilot training cycle. Assistance will be offered in the areas of program administration, program refinements, and expansions.

Illinois (East St. Louis)

TAT's work with industry and state agencies led to a second project with the State of Illinois. Informal discussions were held with the Illinois State Employment Service and Illinois Division of Vocational Education concerning possible resources which TAT could provide for the East St. Louis area. In this case, direct training services by TAT seemed most appropriate, with possible work on an extension following. After preliminary meetings in January and February, interagency agreements were concluded with the State of Illinois for up to 30 individual referrals from the East St. Louis area. For half of the trainees, Illinois is paying full expenses; for the other half, Illinois is paying subsistence allowances while TAT underwrites training costs. The agreement formally specifies plans and objectives for assistance in developing closer cooperative training and job development systems with area industries. One definite possibility to be explored is that of a TAT-type program with the East St. Louis Skill Center and CEP programs. This possibility is being tested through the current joint training program.

In support of the East St. Louis training effort, TAT staff is engaging in a joint job development and placement survey of the area throughout the cycle. During March, staff visited East St. Louis and found that initial demands for skills such as machining are promising. Although the area has industries which employ 25,000 journeymen machinists, apprenticeship programs are almost nonexistent. Openings for machinists are not only numerous, but often are open to machinists with little experience or

with training only. Staff contact with companies in the East St. Louis area and St. Louis area—such as Sunnen Products Company, Ferguson Machine Company, M. G. D. Graphic Systems, and John Ramming Machine Company—confirms that there is a high demand for the skill areas in which TAT trains.

This initial contact was supplemented by mailed questionnaires which have disclosed a number of job openings in the area. One company indicated openings for 30 machinists immediately and openings for another 85 within the next year.

Adult Education-TAT Program

Following several months of negotiation, on February 26, 1973, TAT received approval to join in a cooperative program with the Oak Ridge City School's Office of Adult Education. Through this pilot program, area residents were permitted to apply for TAT training through the Adult Education Program and pay the institutional costs of training (which vary according to training area). The pilot program permitted unskilled and underemployed people who do not meet the requirements for disadvantaged status to gain the industrial training which they need and desire.

The program was widely publicized through the announcement of the Office of Adult Education, through newspaper articles, and through letters to prior TAT applicants. Seventy-eight applicants responded from 15 cities within a 50-mile radius of Oak Ridge. A total of 18 trainees enrolled in the April training cycle. Other applicants expressed an interest in training for the next cycle in October.

The trainees are raising funds for training in a number of ways. Nine trainees are veterans and are drawing educational benefits. Others are training under furds from Tennessee Department of Vocational Rehabilitation. Some students have arranged for loans from local banks, which have been willing to consider the applicants for low-risk loans based on the skills learned and TAT's placement record.

The trainees who enrolled under Adult Education have performed exceptionally well and compare well with all other groups of trainees. Two trainees progressed rapidly enough that they were job ready by the end of the second month of training and were placed in jobs in their skill area. A number of other trainees had reached entry level skills by June 1 and were considering job offers in their skills.

The success of the Adult Education-TAT Program was demonstrated convincingly enough by mid-cycle for TAT to commit itself to an expanded Adult Education Program for the October 1973 training cycle. Staff has contacted a number of educational and community leaders in the surrounding area in seeking support for the program. TAT staff has undertaken an extensive effort to provide information concerning the program to the public, with the major efforts scheduled for July and August.

The Adult Education-TAT pilot program represents a significant innovation in the TAT program since it opens training to a large group of people who previously were excluded. By serving this larger population, TAT can increase its impact on the local area. The fact that a group of trainees can pay their own way is a step toward a program less dependent on federal funding.

Training for Black Lung Award Recipients

Exploratory work began in January toward the establishment of a pilot training program for former coal miners who receive black lung awards. The pilot program was intended to demonstrate that disabled miners can be successfully retrained and placed in industrial jobs in the fields of industrial electricity, machining, and mechanical operations. It was hoped that acquisition of new skills would open profitable industrial careers to the men.

On March 7, 1973, TAT hosted a meeting to discuss development of a pilot program to provide training for ten local miners currently receiving black lung awards. Representatives of the Department of Labor, United Mine Workers, State of Tennessee Vocational Rehabilitation, and the Rehabilitation Service Agency in Atlanta attended the meeting. Agreement was reached on the training program which was scheduled to begin on April 2, 1973.

Efforts to locate and recruit former miners for the training positions were begun at once. An intensive recruiting campaign included personal contacts throughout the coal mining communities of East Tennessee, news releases, radio and television coverage, and numerous contacts with the various agencies which serve the black lung award recipients in the area. However, by the beginning of training, only one black lung award recipient had been recruited. Recruitment was greatly complicated by the confidential nature of records concerning black lung awards, and a

reluctance on the part of the men to do anything which might jeopardize their black lung awards. Further, since the men are disabled, it is difficult to find men who are able to undergo training. Many potential applicants were physically unable to enter training. Efforts to locate and recruit former miners continued well into the training cycle.

There has been continued interest on the national level in the black lung training program. The problem of confidentiality of records has been relieved somewhat by the efforts of the Department of Labor and the Social Security Administration. Lists of possible candidates have been made available by area Social Security offices. Should these candidates prove interested in training and physically capable of training, further programs for recipients of black lung awards may be planned.

West Virginia

In March, TAT staff concluded negotiation for a joint training program with representatives of West Virginia Employment Service and construction industry representatives

It was agreed that up to 20 trainees would be sent to TAT for a special three-month course in combination welding. Further, it was agreed that the project, and possibly other TAT-West Virginia training experiments, would serve as experience for the development of industry-state training applications. West Virginia is paying trainee allowances, while TAT is providing institutional training and trainee services.

The trainees selected are all Vietnam-era veterans and are drawn from two counties in West Virginia designated as redevelopment counties. By June 30, eight of the original group of 19 had finished training and reported for work. The cooperating partners in the training program were willing to extend the project an additional two weeks for the remainder, based on the good progress shown by the group.

The success of the project has been satisfactory to all the participants. Discussions of further joint training projects of this sort are under way.

McDowell Mine Technology Training Center

Program development activities for the McDowell Mine Technology Training Center were largely completed during 1972. The training partnership would include Concord College, Athens, West Virginia; the Free State Training Association; the M and C Coal Company of Northfork, West Virginia;

and various State of West Virginia agencies. Application activities during 1972 are reported in the *1972 Training and Technology Annual Report and Statistical Summary*.

Late in May, TAT received word that the Appalachian Regional Commission had turned down funding for the McDowell project. TAT staff then began exploring alternate funding sources. During June, staff met with the new director of the Atlantic States Economic Development Agency to explore possible avenues for obtaining funding. TAT will continue to explore this and other alternatives to determine whether or not funding is available.

Tennessee R&D Applications

During the first half of 1973, TAT staff have worked toward defining TAT's place in Tennessee's manpower development activities under state and local sponsorship. The program director and staff made presentations to the Tennessee Manpower Council on January 29-30, 1973. A second presentation was made to the Knoxville Manpower Council on March 30, 1973. As a result of these presentations and numerous informal conversations, it was decided that supplementary RAR (Section 241) monies which are at regional and national disposal, would be sought as a source of funding.

The TAT presentation to the Knoxville Manpower Council, on March 30, 1973, proposed two actions. First, it suggested that 15-20 training slots be made available to area manpower programs at no cost. Second, it proposed that a joint request for Section 241 funding of 20 twelve-month training slots be included in the Knoxville and East Tennessee plans for FY 1974 and submitted to Region IV. Realizing the net cutbacks announced in regular manpower funding, the Council formally endorsed the presentation for recommendation to the Mayor.

A second presentation was made to the East Tennessee Manpower Planning Board. The Board agreed to include TAT in the district's FY 1974 plan and funding. On April 18, the formal submissions by the East Tennessee Board and the Knoxville Council were forwarded to Governor Dunn and the Tennessee Manpower Council. The Tennessee Manpower Council in turn included these plans in the state manpower plan and forwarded that document along with funding recommendations to the regional offices of Department of Labor.

TAT is continuing to work with local, state and regional manpower planning agencies in formulating plans for the optimum use of local resources for manpower development. Staff has met with the City of Knoxville planners and discussed possible roles for TAT in manpower revenue sharing plan for the area. The Knoxville Area Manpower Planning Council has also visited TAT to make a first-hand assessment of TAT's facilities and potential for application to the manpower needs of the area.

On June 29, Dr. Pat Choate, Tennessee Commissioner of Economic and Community Development, visited TAT, toured the training facilities, and received a briefing on TAT manpower development activities. Plans have been made for further meetings with the Tennessee Commission of Economic and Community Development.

II. Joint High School and Industry Training

Given the success of the Oak Ridge High School-TAT program in 1972 (see 1972 annual report), it was decided that this approach to career education should be more widely applied to area high schools. During the reporting period, three area schools were contacted—Clinton Senior High School, Oliver Springs High School and Roane County High School. TAT staff visited each high school and, with the assistance of school guidance counselors, presented the program to interested students. Students were invited to visit TAT for the tour, test and interview process by which trainees are selected. High school staff members were also invited to tour the TAT facility to familiarize themselves with the program.

Twenty-five students from the three high schools were enrolled in the April cycle. These students, plus the 15 Oak Ridge High School students now enrolled as a regular part of the TAT program, are demonstrating the practicality of an expanded career education effort in the area through the cooperative efforts of TAT, local high schools, and the State of Tennessee.

TAT staff has continued to work on refinement of the high school program. Oak Ridge High School teachers have been hired for the summer to teach trade-related courses. A cooperative effort by which a high school might furnish teachers for trade-related instruction has been suggested as a means of lowering training costs and thus making the program available to more students.

Community Career Education Resources Project

The Community Career Education Resources project (CCER) is intended as a means of gathering the information necessary for the planning and conducting of a sound career education program within the community. The initial phase of the project was the design of a survey instrument which was used to build a Community Career Education Resources data bank which included three types of information—community resources available for joint career education programs, ways in which community organizations and institutions would like to be involved, and capabilities of interested organizations and institutions in relation to the joint program (see 1972 annual report for full details of CCER work last year).

During the current reporting period, Phase II of the CCER project was conducted. This phase, which was coordinated by staff of the East Tennessee Development District, used a senior psychology class of Oak Ridge High School to make followup contacts with businesses which did not respond to the initial survey. The method not only provided career education data, but also provided the students with practical experience as interviewers. The results of the CCER survey and followup procedures were submitted to the CCER Steering Committee in April 1973. Further action on the CCER project rests with the CCER Steering Committee.

III. Experimentation and Evaluative Research

Post-Placement

The Post-Placement Followup Study was completed and distributed in April. The comments returned by readers have generally been most favorable. The findings of the study are presented below.

Training and Technology conducted a post-placement survey of its graduates during the summer of 1972. The purpose of the survey was to determine the success of TAT's graduates and to identify problems encountered by graduates. The survey was conducted by college students hired as interns. The measure of TAT's success must rest on its graduates' success.

The results of the survey of a random sample of 472 graduates are outlined below.

Stability. On the average, graduates were employed more than 90% of the time since graduation, and 10% were unemployed at the time of the survey. A total of 421 graduates were employed for an average of 24.6 of a possible 27 months after training.

Wages. Graduates reported an average starting wage of $2.84 and $3.53 at the time of the survey. The pre-training average wage for those employed was $1.93.

Satisfaction. The majority of graduates reported satisfaction with all aspects of their jobs—pay, the company, co-workers, unions, supervisors, and the job as a whole. Of these aspects, co-workers and supervisors were most satisfactory.

Job Performance. Most employers (87%) rated TAT graduates as average to superior.

Training Related Positions. Asked about training relatedness of jobs, 64% of the graduates reported related or somewhat training related duties on their first job. Duties tend to become more training related with time (67% by the time of the survey).

Post-Placement Adjustment Period. With the exception of the graduates who relocated (26%), the majority of the graduates reported few problems in adjusting to job and community settings.

Relocation. Two-thirds of the graduates who relocated had problems. Three severe problem areas were reported—housing, relocation, expenses, and homesickness. Relocation problems tended to last an average of four months.

Job Adjustment. A third of the graduates had job adjustment problems. The more severe problems included transportation, job difficulty, and conflicts with co-workers and supervisors. Even these problems lasted for only the first three or four months. Employers reported a different set of problems—absenteeism, tardiness, and excessive sick leave; however, supervisors considered these minor.

Personal Development. TAT graduates continued to work toward a better standard of living by moving to better housing; securing transportation to work; managing money responsibly; insuring their homes, cars and lives; and working toward greater job competence.

Minority and Disadvantaged Graduates. An important aspect of the survey results was the relative success of black and white and disadvantaged and nondisadvantaged (at the time of training) graduates. In two areas there was little difference between blacks and whites—hourly wages and training relatedness of duties. Blacks did report less job satisfaction, more job adjustment problems, and higher unemployment. Supervisors also rated blacks lower on job performance. The differences reported, however, are not so surprising as the rather minor nature of the differences.

Disadvantaged graduates reported less job satisfaction and slightly lower wages. However, they also received higher job performance ratings, had less unemployment, and reported the same degree of training relatedness of duties.

The success of the TAT graduates seems to validate the industry/education model which TAT has developed as a successful manpower development effort with potential for much wider application.

Welding Study

Phase I of the analytical assessment of the TAT welding program has been completed. The major objective of this phase—to analyze the total TAT program according to its components—guided staff activity during this period. Since the TAT employment process encompasses a comprehensive system, recruitment through placement, part of the completed analysis is not exclusively considered the welding training program. The rationale for viewing the total system of training is based on the assumption that the success of the welding program is attributable to the total employment process system, not merely to some one or subset of its components. At this point in time, however, each component of the system has been identified in discrete terms so that its function can be scrutinized and the interrelationships among functions examined.

Currently under way is Phase II which entails participation of selected training programs in the Southeastern region. Formulated from TAT's welding program were the components which were felt to have an effect on the success of the program. During Phase II, other MDTA training programs were requested to provide information about their programs. Comparing each program's components would yield common and unique factors, which would allow the study staff to formulate tentative generalizations about components that are essential to operating a successful welding training program.

Response to our requests for information from other MDTA welding programs has been disappointing. Only two responses have been received, and without the information a comparison of program components is impossible. Should there be no further responses, the detailed description of TAT's welding program will be published as a curriculum document with an analytical checklist for program evaluation.

Internships

During this reporting period, Miss Jeanne Givens, an intern from the University of Tennessee School of Social Work, completed her work on a project to establish community linkages for departing graduates. The completed project is now being reviewed by TAT staff for field testing and possible adoption in part or in whole.

Mrs. JoAnna McCroskey, an intern from the University of Tennessee Department of Human Services, is currently conducting a social services support project with the cooperation of the TAT staff. Classes are to be offered in community assessment and community resources identification for the TAT trainees.

Trainee Orientation Procedures

Orientation procedures for TAT trainees continue being documented, analyzed and improved. Improvements are being made on the bases of trainees' needs, staff needs, and cost effectiveness maximization. Although the inclusion and development of individualized programmed-instruction units on specific topics are no longer deemed necessary, the development of an "Orientation Quiz" to determine content retention progresses.

The initial "Orientation Quiz" was administered to all trainees during the week of November 6, 1972. Quizzes were scored and quiz information was encoded. A preliminary analysis appeared in January 1973. Complete analysis awaits trainees' termination so that scores on the "Orientation Quiz" may be correlated with disciplinary problems and termination reasons. A report was written and distributed to staff members involved in orientation. Discussions with various staff members and orientation planning meetings occurred in March. The "Orientation Quiz" was revised.

TAT Data Bank

Data bank activities continued during the reporting period with priority given to the writing of new programs for the data bank use.

A number of special requests for information were answered with information from the data bank, and data were supplied to support various phases of TAT's activities—research projects, application and extension efforts, and placement. The *Statistical Supplement* for 1972 was also prepared through the data bank. Data bank activities for the previous year are reported in the *1972 Training and Technology Annual Report and Statistical Summary*.

In order to facilitate the use of the TAT data bank, a part-time computer programmer has been employed. The TAT data bank is currently undergoing an assessment to ensure that its operation will contribute most effectively to the research and evaluation projects planned for the following year and still operate within the constraints of the FY 1974 budget.

UTILIZATION

Regional Utilization Network Conference

During 1972, TAT staff engaged in a series of meetings and conferences with the goal of developing a Regional Utilization Network Conference which would provide for the systematic utilization of manpower planning and program information across the Southeastern region. The RUN Conference had its initial activity in the Planning Workshop held at Oak Ridge September 18-20, 1972.

The next major event in the development of the RUN Conference was the R&D Demonstration Fair held in Atlanta on January 10-11, 1973, in which presentation on manpower educational services were given by five R&D projects in Region IV. TAT's presentation was on the participation of high school students in an industrial training program.

Other participants in the Demonstration Fair included the Manpower Development Corporation of North Carolina; Technical Education and Research Center; Rehabilitation Research Foundation, Alabama; and the Center for Manpower Research and Training, North Carolina A & T State University.

In conjunction with the R&D Fair, teams of independent observers and the participants submitted written evaluations of the individual presentations and critiqued the Fair as a whole. The establishment of the RUN Conference *News and Notes* created a means for communication among Conference participants. The newsletter reports Conference business and papers or assessments by members.

On March 13, 1973, the RUN Conference Steering Committee met in Atlanta. Three main topics were dealt with in the meeting—consideration of closer regional manpower agency linkages by Southeastern R&D projects; utilization priorities and strategies for 1973-74; and establishment of a flexible RUN Conference structure to plan for and implement agreed-upon activities. A chairman, Wendell Russell, was chosen to coordinate the Steering Committee for the coming year.

DOCUMENTATION AND DISSEMINATION

During the first six months of 1973, 206 persons visited the TAT program and conferred with TAT staff, and 3,063 copies of TAT publications were distributed. Reports prepared and distributed during the first half of the year include:

1972 Training and Technology Annual Report and Statistical Summary, March 1973

Industry Based Career Education, January 1973

Organizational Prospectus—An Industry Education Consortium for Industrial Training, January 1973

Survey of Post-Placement Experience of TAT Graduates, April 1973

Training and Technology (TAT) Impact in the Sixteen Counties of East Tennessee, June 1973

In addition to these publications, TAT staff conferred with Mary Davies, U. S. Department of Labor, who is preparing a monograph on Training and Technology. Several publications are scheduled for release in July including: *Training and Technology—A Systems Approach to Industrial Training* and *Upgrading in an Industrial Setting, Phase I, Part 2: Testing of Upgrading Models in an Industrial Setting.*

Other dissemination efforts included preparation of news releases in support of the TAT program. The Adult Education Program received wide coverage in area newspapers. Willard Yarborough, *Knoxville News-Sentinel* staff writer, prepared a feature story on the Adult Education Program which was published on March 18, 1973. A news release on the training program for former miners receiving black lung awards was also distributed throughout the area and was carried by a number of East Tennessee newspapers and radio stations. WBIR Television, Knoxville, also filmed a news feature on the program, which was broadcast on April 5, 1973. WBIR Television returned and filmed a second news feature on the black lung program, which was broadcast on May 24, 1973.

A summary of visitors to TAT, meetings attended and visits made by TAT staff follows:

ctivity Area	Meetings	Visits	Visitors	
	TAT staff attended the RUN Conference R&D Fair in Atlanta. TAT Project Advisory Committee met.	TAT staff visited Nashville to deliver revised MT-2's for state approval. Staff visited Washington, D.C., to coordinate efforts to involve AEC eastern contractors in TAT. TAT staff visited Chicago to coordinate final basic negotiations of proposal and funding terms for Chicago area training project. Staff held discussions with EDA officials in Atlanta.	Richard McAllister, Department of Labor's Office of Research and Development. Louis Levy and James Shriner, National Lead Company of Ohio. George Walker, Kenneth Brooks and Paul Akers, Oak Ridge High School. Joyce Curry and Warren Cannon, National Accelerator Laboratory. Judy Cochran and Pat Barnett, Oak Ridge Mental Health Center.	January
	TAT staff attended meetings at EDA and DOL regional offices in Atlanta. The Upgrading Research Coordinating Council met.	TAT staff visited Cincinnati to discuss National Lead sponsorship of trainees, and upgrading, assessment and exploration for April cycle. Staff visited Newport News to establish liaison between TAT and Voluntary Action of Newport News. Staff visited Chicago, Illinois; Burlington, Iowa; and Aiken, South Carolina to discuss TAT program and solicit participation. TAT staff visited Kingsport to discuss participation of Eastman Kodak in TAT. Staff visited Charleston, West Virginia, to meet with the Governor of West Virginia and agency commissioners.	Students from the State Area Vocational-Technical School in Jacksboro and their instructor, Ned Asbury. J. R. Harte, Norman Holtz, L. L. Smith, W. C. McFall, H. E. Bozeman and R. L. Cantrell, Bowaters Southern Paper Corporation. Tilman Harmon, Sidney Finley and Sean Miller, Argonne National Laboratory. James Schott, Albert Diehl, Ann Clausing and James Young, Oak Ridge High School. Sam Weaver, U. S. Nuclear, Inc. W. D. Ballew, Combustion Engineering Corporation. Robert Scalf, International Association of Machinists 480. A. J. Pearson, International Brotherhood of Electrical Workers.	February

ctivity Area	Meetings	Visits	Visitors	
		Staff visited Chicago for program development on chem-tech training consortium. TAT staff visited Richmond, Virginia, for discussions with Virginia state officials. TAT staff visited Washington, D.C., for discussions with ARC and other agency officials. Staff visited Washington, D.C., to meet with DOL officials. Staff visited Newport News to discuss placement and relocation procedures for TAT graduates. Staff visited Raleigh, North Carolina, to discuss possible cooperative training programs with construction company and EDA officials. Staff visited Atlanta to discuss South Carolina-EDA program.	Warren Cannon and Raul Rodriguez, National Accelerator Laboratory. Merlin Keese and Edward Dodge, Honeywell Corporation. Wilma Dunaway and Clarence Allen, Knox Urban League. William Oakes, Little Tennessee Valley Educational Cooperative. Edward Martin and Michael Rogers, Tennessee Valley Authority. Kermit Marcus, Bruce Trapp, Carroll Campbell, Kenneth Byrd, Robert Skidmore and Kenneth Marine, Alcoa School System. John Donohue, Syracuse University.	February (continued)
	Staff participated in the RUN Conference Steering Committee meetings in Atlanta. TAT staff attended meetings in Nashville with area manpower coordinators, development district personnel and other state agencies. Staff attended the 1973 National ASPA Conference in Los Angeles.	TAT staff visited Cincinnati for recruitment purposes with National Lead and discussions with Proctor and Gamble for replication. Staff visited Middlesboro, Kentucky, to coordinate recruitment efforts for black lung program. Staff visited Atlanta and Charleston, West Virginia, for program development discussions with the Commissioner of Employment Security, planning director, industry representatives.	Richard McAllister, Mary Davies, Dail Phillips and Howard Silberstein, U. S. Department of Labor. Vernon Magnesen, Triton College, Illinois. O. E. Reece, Tennessee State Vocational Rehabilitation. Otis Hurst, Frank Smith, Carol Tucker, Timothy Sullivan, Milton Anderson and Helen Trentham, Knoxville Vocational Rehabilitation.	March

ctivity Area	Meetings	Visits	Visitors	
	TAT hosted a meeting to explore training possibilities for black lung award recipients. Representatives of the United Mine Workers, U. S. Department of Labor, State of Tennessee Vocational Rehabilitation Department and the Rehabilitation Service Agency in Atlanta attended the meeting.	TAT staff visited Louisville, Kentucky, Chicago and Springfield, Illinois, to conclude contractual agreements with state administration. Staff visited Nashville to meet with the Commissioner of Education. Staff visited Washington, D.C., to meet with DOL officials. Staff visited Alcoa, Tennessee, to discuss new cooperative programs with Superintendent of Alcoa City Schools. Staff visited Charleston, West Virginia, to make arrangements for the West Virginia cooperative training referral program.	Billy Joe Floyd and O. Harmon Cooter, United Mine Workers. Lewis Davis, Rehabilitation Service Agency, Atlanta. Bob Lundquist, Tennessee State Department of Education. J. O. Nicholson, Tennessee State Division of Technical Education. Grant Duke, Tennessee State Division of Industrial Development. William Holbert, Michael Gordon and Douglas Massengill, University of Tennessee. Barry Silber, State of New York Department of Labor. William Bass, Alabama Department of Public Health. Michael Deschamps, University of Montreal. John Giedt, North Dakota State Department of Health. James Gillespie, Georgia Department of Human Resources. James Hartranft, Orange County Health Department. James Hufham, State of Alabama Department of Health. Terry Johnson, Ohio Department of Health. Emory Larimore, Kansas State Department of Health. John Rogers, State of New Mexico.	March (continued)

Activity Area	Meetings	Visits	Visitors	
			Margaret Anderson, Clinton High School. John Shoemaker, Mississippi State Board of Health. Harry Ross and Robert Logue, Tennessee Valley Authority. Thomas Grindstaff, Harry Clark and George Gregg, Western Carolina Industries, Inc. Carol Simmons, J. Will Munsey, Bobby Hutcheson and Alvis Malicote, Mountain Valley Educational Opportunity Authority. Jay Ford and James Green, Ingalls West Shipyard. William Taylor, Richard Griffin, Charles Atkins and Joseph Delafosse, Daniel International. L. Donald Barrier and G. Donald Barrier, Pittsburgh Testing Laboratory. Wesley Allen, James Mundy and Leslie Barlow, Nashville Bridge Company. Keith Holb and Greg Malinaro, United States Steel Corporation. Albert Pearl and Tilman Harmon, Argonne National Laboratory. Kennard Williams, National Accelerator Laboratory. Larry Kopecky, A. M. Barnes, Jr. and J. D. Williamson, Brown and Root, Inc. William Lewis and James Helton, Oak Ridge High School.	March (continued)

ctivity Area	Meetings	Visits	Visitors	
	Staff met with Vocational Rehabilitation officials in Knoxville. Staff made a presentation to a meeting of AEC regional compliance offices. TAT staff met with Tennessee Employment Security officials in Knoxville. TAT staff members attended the National ASPA Convention in Los Angeles. Staff met with DOL officials in Washington. Staff members attended the Southeastern Physiological Association meeting in New Orleans. TAT Advisory Committee met.	Staff visited with and consulted with Chicago area training consortium staff. Staff visited a number of communities in East Tennessee seeking black lung program participants.	Wayne Hollis, Donald Ressequie, Ann Crompton and Carey Cox, Tennessee Department of Vocational Rehabilitation. Harry Ross and Richard LeDestro, Tennessee Valley Authority. Kennard Williams, National Accelerator Laboratory. Tilman Harmon, Argonne National Laboratory. James Shriner, William Smilardo and George Smith, National Lead Company of Ohio. Robert Daniel, United Mine Workers. Jerry Crowder, Knoxville Area Vocational Technical School. Joseph Delafosse and Paul Morgan, Daniel Construction Company. James Helton and James Howell, Oak Ridge High School. Pearl Williams, Roane County High School. Margaret Anderson, Clinton High School. Ernest Brewer, University of Tennessee.	April
	TAT staff attended the American Society for Training and Development National Conference in Miami. Staff attended a meeting of the League of Cities/ U. S. Conference of Mayors National Manpower meeting.	Staff met with North Carolina Manpower officials in Wilmington, North Carolina. Staff visited TVA headquarters in Knoxville. Staff visited Knox County Adult Education Office to discuss TAT/Adult Education program.	Lynn Weaver, Georgia Institute of Technology. John Dillon, University of Louisville. Ben T. Lanham and Willie Ocasio-Cabanas, University of Puerto Rico. Joseph Sam, University of Mississippi. Thomas Siddall, Louisiana State University.	May

Activity Area	Meetings	Visits	Visitors	
	Staff attended meetings of East Tennessee Development District in Knoxville. Staff participated in meeting of Knoxville Mayor's manpower staff. TAT staff met with officials of the First Tennessee-Virginia Development District. Staff attended the American Personnel and Guidance Association Convention in Atlanta.	Staff visited Nashville for discussions with State Vocational Rehabilitation officials. Staff visited Brown's Ferry, Alabama, to discuss requirements for craftsmen with TVA officials.	Albert Wetzel, University of Tulane. W. Dexter Whitehead, University of Virginia. Jere Farley, Harry Ross, James Goins and Samuel Inman, Jr., Tennessee Valley Authority. Kennard Williams, National Accelerator Laboratory. Keith Erickson and James Zitzman, Tennessee Education Association. Robert Daniel and Robert Barrie, United Mine Workers. Gary Walkup and Sandy Myers, X-Ray Engineering. Eleanora Easterly, *Clinton Courier*. Mark Engel, Ann Powell and Faith Baugh, WBIR-TV. Jack Kerr, Robertshaw Controls. Paul Goldberg, Roane State Community College. William Cameron, Southern Association of Colleges and Schools. Pearl Williams, Roane County High School. Robert Armstrong, Oak Ridge Social Security Office. Angela Fisher and Cordelia Vanover, Oak Ridge High School.	May (continued)
	Staff met with Georgia state and regional planning officials in Atlanta to explore program development.	Staff visited Chicago, North Aurora, and Argonne, Illinois; and Brookhaven, New York, to discuss participation with AEC contractors.	Jim Ketcher, Stanford Linear Accelerator Center.	June

ctivity Area	Meetings	Visits	Visitors	
	Staff met with Region III Director of U. S. Economic Development Administration in Philadelphia to discuss EDA-TAT potential cooperation and the McDowell Mine Project.		Conrado Butierrez and Jean Davis, Los Alamos Scientific Laboratory. Karol Berscheid, Lawrence Livermore Laboratory. Herb Pitts, Sandia Laboratories. Ron Santi, Ames Laboratory. William Lacy, Lawrence Berkeley Laboratory. Warren Cannon, National Accelerator Laboratory. Pat Choate, Commissioner of the Tennessee Department of Economic and Community Development. James Perks, West Virginia Department of Employment Security. Lester Smalley and B. H. Palmore, Jr., Knoxville Manpower Area Planning Council. Grady Benn, Norman Young, Fred Vance and Ernest Potts, Knoxville Employment Security Office. Kennard Williams, National Accelerator Laboratory. James Jones, International Business Machines. Boyd Greer, Wendell Lemons and Lewis Owen, Daniel Construction Company. Joan Wallace, *The Oak Ridger*.	June (continued)

TRAINING AND TECHNOLOGY

During the first six months of the year, 214 trainees graduated from Training and Technology. Seventeen of these graduated from the Paducah FIT program, 173 were graduates of TAT's October 1972-March 1973 cycle; the others were carryovers from that cycle or early graduates of the current cycle.

Placement of graduates has continued with the TAT Placement Officer contacting a number of major industries in the Southeast and across the nation. Better than 85% of the October 1972-March 1973 cycle have been placed, as well as a number of graduates from the current cycle. Companies hiring TAT graduates included: Newport News Shipbuilding and Dry Dock Company, Nashville Bridge Company, U. S. Steel Corporation, Brown and Root, Inc. (Houston, Texas, and Southport, North Carolina), Daniel Construction Company, Pittsburgh Testing Laboratory, Combustion Engineering, Robertshaw Controls, Benco, Davis Electrical Constructors, National Accelerator Laboratory, Argonne National Laboratory, Jim Robbins Seat Belt Company, AVCO, Industrial Air, ITT Grinnell Corporation, Applied Engineering, X-Ray Engineering, Phoenix Manufacturing and Dempster Brothers.

Enrollment for the current cycle stands at 191 as of June 30, 1973. Sponsors include Union Carbide Corporation, Argonne National Laboratory, National Lead Company of Ohio, National Accelerator Laboratory, the States of Illinois and West Virginia, Oak Ridge High School, and Oak Ridge Adult Education Program.

UPGRADING IN AN INDUSTRIAL SETTING

The purposes of Phase I of this study were: (1) to assess industrial upgrading practices in three AEC plants in Oak Ridge, operated by Nuclear Division, Union Carbide Corporation and (2) to experiment with various techniques designed to improve employee upgrading potential.

Opportunity counseling, interest and aptitude testing, and operation of the Assessment Center have continued.

Seven assessment panels were conducted involving 40 candidates for supervisory positions. In conjunction with Assessment Center participation, opportunity counseling was provided for several of the candidates electing to participate. Development plans and opportunities were discussed at this time.

Orientation and instruction of assessment panelists were accomplished to ensure consistency and reliability in the process.

During April, questionnaires were developed to allow candidates who had participated in the Assessment Center and their supervisors to comment on the effectiveness of the Center and its approach. The questionnaires were distributed in May and the results provided a means of evaluating the consistency and reliability of Assessment Center results. Responses to the questionnaire were favorable. Although some first-line supervisors were concerned over occasional disagreements with assessment results, the findings of the survey are reported in full in the report *Upgrading in an Industrial Setting, Phase I, Part 2.*

A meeting of the Upgrading Research Coordinating Council was held February 2, 1973, and the Phase I, Part 1, report was discussed. Furthermore, the need to employ different upgrading strategies for men and women was discussed as well as the apparent voids in data that exist among companies' data collection systems.

During June, the *Upgrading in an Industrial Setting, Phase I, Part 2: Testing Upgrading Models in an Industrial Setting* was essentially completed and distributed to staff for final review. The report is summarized briefly below.

Study Summary and Conclusions

This study briefly reviews the results of Phase I, Part 1, and reports the activities and results of Part 2 of the project Upgrading in an Industrial Setting. Part 2 was designed to be a pilot test of several

programs to improve upgrading techniques which were based on the analysis of upgrading practices completed in Part 1.

Three models of upgrading technique, derived from the Part 1 descriptive study, were operationalized and tested in Part 2:

1. The Situational Model—This model, represented by an Assessment Center, was undertaken to provide a means of objectifying and improving the identification of advancement potential. It involved simulating problems encountered in supervisory jobs and carefully measuring the candidates' responses to these problems.

2. The Paper-Pencil Testing Model—This model represents one of the major elements of the upgrading system of many organizations to date. As it is non-time consuming and inexpensive, it can be an attractive approach, provided the methods are properly validated.

3. The Opportunity Counseling Model—This was the most innovative approach undertaken as part of the project. It was expected that employees would find useful a systematic way of obtaining company specific, general, and personal occupational information. The opportunity counseling program and associated technical support was instituted on a pilot basis to provide such information utilizing Assessment Center and testing results and personal interviews.

The final test of an upgrading technique is, of course, the effect on the career progression of the subjects, and while it is now too early for the effects of the procedures begun in Part 2 to be fully assessed, some interim conclusions are in order.

- Both the Assessment Center (situational model) and the opportunity counseling model have found ready acceptance. Apparently, management's need to make good promotional decisions and the need of the employees to make sound career decisions made both groups receptive to a means of obtaining more objective information.
- The judgments of managers and participants support the value of the Assessment Center process. First-line supervisors were slightly less enthusiastic because they were more impressed with occasional disagreements with assessment results. However, they too found it to be a source of information not otherwise available.
- All three groups—managers, supervisors, and participants—made comments showing insight into the assessment process, and these comments are expected to serve an important role in further development of the Assessment Center.

- Paper and pencil testing provided additional information that was essential in opportunity counseling. An interest inventory was the most beneficial, while other tests provided information to support other sources.
- Opportunity counseling, which was wholly voluntary, was very well received. Participants showed avid interest in the process, and it apparently stimulated serious discussion of personal career plans. It also gave employees an opportunity to put into a hard record relevant career information. Once the instruments used in the counseling process (Assessment Center, standardized tests, and interviews) have been thoroughly researched and validated, a sound basis will exist for further development of training programs.

An extension of the Upgrading Project was requested to provide for utilization of some of the findings of the upgrading study to date. A questionnaire concerning interest in workshops on the topic of upgrading was prepared and distributed to AEC contractors through the AEC Division of Labor Relations. TAT staff also visited several AEC contractors and discussed possible utilization of upgrading findings. Initial response indicates a definite interest in upgrading among AEC contractors, and plans are being formed for workshops.

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